

Notice of Allowability	Application No.	Applicant(s)	
	10/689,727	FURUKAWA ET AL.	
	Examiner	Art Unit	
	Kiet Doan	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment Faxed in 02/07/2006.
2. ☒ The allowed claim(s) is/are 7, 9-38, 48, 50-69, 71-78 have been renumbered 1-61 respectively.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |


GEORGE ENG
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

This office action is response to amendment which faxed direct to examiner (RightFAX) on 02/07/2006 and to Central Fax on 02/14/2006.

Examiner thanks the applicant's Rep. Joseph Ragusa which agrees by telephone the propose amendment claims and fax to 'Central Fax' number.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Claims objected have been cancel and add (rewritten) to independent claims 7, 38 and 48 and further amended.

Therefor, **Claims 7, 9-38, 48, 50-69, and 71-79** are allow.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph W. Ragusa at (212) 896-5452 on 02/10/2006.

The applicant has been amended as follow:

Claims 1-6, 8, 39-47, 49, 70 and 80-84 are cancelled.

Claims 7, 9, 20-30, 36-38, 48, 50, 78 and 79 are amended

Claims 7, 38 and 48, the phrase "and (or)", "and/or" deleted "or"

Claims 50-69, 71-79, Line 1, the phrase " The program according to claim" change to "The computer readable medium storing according to claim" deleted the word "program"

Claim 7. (Currently amended) A base-station cell design method in a mobile communication

system, wherein a service area, and a traffic density distribution within this service area are given to locate base stations within the above service area, said base-station cell design method characterized in including a base-station layout decision step of sequentially deciding until traffic coverage ratio exceeds desired traffic coverage ratio and said traffic coverage ratio is defined as a rate of a total traffic quantity absorbed by the base stations to all the traffic quantity that occurs within said service area,

said layout decision step comprising:

a step of calculating a traffic absorption quantity [and (or)] and a communication quality value in each of candidate locations of said base station;

an objective-function calculation step of calculating a predetermined objective-function responding to the quantity and [(or)] the value that are this calculated result;
and

a step of selecting a layout at which the base station is installed responding to this objective-function.

Claim 38. (Currently amended) A base-station cell design apparatus adapted so that, in designing a base-station installment in a mobile communication system, a plurality of base-station candidate locations are given within a service area to install a base station in anyone of these base-station candidate locations, said base-station cell design apparatus characterized in including:

objective-function calculation means for calculating a predetermined objective-function responding to a traffic absorption quantity [and/or] and a communication quality value in each of said base-station candidate locations; and

base-station layout decision means for deciding a layout at which the base station is installed responding to this objective-function,

wherein said objective-function is giving as a function of the base station candidate location, the channel, the type of antennas to be used, and its installment direction.

Claim 48. (Currently amended) A computer-readable medium storing a program for causing a computer to execute a base-station cell design method in a mobile communication system, wherein a service area, and a traffic density distribution within this service area are given to arrange a base station within the above service area, said program characterized in including a base-station layout decision step of, with a rate of a total traffic quantity that can be absorbed by the base stations arranged within said service area to all traffic quantity that occurs within said service area taken

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as a traffic coverage ratio, sequentially deciding layouts at which the base station is installed until said traffic

coverage ratio exceeds a desired traffic coverage ratio,

said base -station layout decision step comprising:

step of calculating a traffic absorption quantity and [(or)] a communication quality value in each of said base-station candidate locations;

an objective-function calculation step of calculating a predetermined objective-function responding to the quantity and [(or)] the value that are this calculated result; and

a step of selecting the layout at which the base station is installed responding to this objective-function.

Conclusion

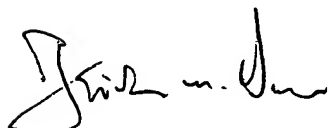
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet Doan whose telephone number is 571-272-7863. The examiner can normally be reached on 8am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kiet Doan
Patent Examiner

JEAN GELIN
PRIMARY EXAMINER

